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REMARKS

In the parent application Ser. No. 09/768,580 filed January 23, 2001, a Final Office Action dated December 22, 2003, objected to claims 28, 29, 31-33, and 35-40 as being unpatentable over Templeton and rejected claims 30 and 34 as being unpatentable over Templeton in view of Gaudenzi. The present continuation application has been filed to further prosecute claims 28-40. Thus, the instant Preliminary Amendment will address the rejections from the parent application's Final Office Action. Claims 28-40 remain in the application. No new subject matter has been added with these remarks.

A. 35 U.S.C. § 103(a)

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Templeton- Claims 28, 29, 31-33, and 35-40

Claims 28, 29, 31-33, and 35-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the U.S. Patent No. 5,874,321 issued February 23, 1999 to Thomas Templeton, et al. (hereinafter "Templeton") (Final Office Action, page 3).

Regarding claim 28, the Office contends that it would have been obvious to incorporate a substrate wherein the side that does not have the flip chip mounted to it is attached to the plurality of shelves, since by doing so electrical connection would not require the use of a via, and thus the electrical distance between the devices would be shorter. However, “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)(See also MPEP § 2143.01).

Templeton discloses attaching the side of the substrate that has the flip chip mounted to it to the shelf. Simply because the side of the substrate that does not have the flip chip mounted to it could be attached to the plurality of shelves, does not mean that such an attachment is obvious, especially when there is no suggestion to do so in the Templeton reference. “Although the prior art may be capable of being modified to operate in the same manner as the present invention (which the applicants do not concede), there must still be a suggestion or motivation in the reference to do so.” 916 F.2d at 682.

Regarding the Office’s contention that vias will not be required by attaching the side of the substrate with the flip chip mounted to it to the shelves, Templeton discloses that vias connect the chips attached to the lid to chips located in the base (see Detailed Description). Thus, the use of vias will not be eliminated between the devices by attaching the side of the substrate without the chip mounted to it to the plurality of shelves, as the Office contends, since electrical connection between the chips attached to the lid and the chips attached to the base is through vias as disclosed in Templeton. In addition, the Templeton reference specifically requires that the chips are located within the cavity, and thus teaches away from attaching the

side that does not have the flip chip mounted to it to the plurality of shelves (see Summary of the Invention).

“To establish prima facie obviousness of a claimed invention, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings.” *In re Vaeck*, 947 F.2d 488. Therefore, since there is no suggestion or motivation to modify Templeton, and in fact, Templeton teaches away from attaching the side without the chips to the shelf, Templeton does not render the present invention obvious under 35 U.S.C §103(a). Reconsideration and withdrawal of the 103(a) rejection of independent claim 28 and claims 29, 31-33, and 35-40 which depend from claim 28 is respectfully requested.

Templeton in view of Gaudenzi - Claims 30 and 34

Claims 30 and 34 stand rejected under 35 U.S.C. § 103(a) as being obvious over the Templeton patent in view of the U.S. Patent No. 5,313,366 issued May 17, 1994 to Gene Gaudenzi, et al. (hereinafter “the Gaudenzi patent”) (Final Office Action, page 5).

Regarding claim 30, the Office contends that while the Templeton patent does not disclose electrically connecting the substrate to at least one of the shelves with a wire bond, Gaudenzi discloses electrically connecting the substrate to at least one of the shelves with a wire bond. The Office maintains that it would have been obvious to incorporate wire bonding the substrate to a shelf with the invention of Templeton (Final Office Action, page 5).

Even though the it may have been obvious to incorporate wire bonding the substrate to a shelf with the invention of Templeton (the possibility of which the Applicants do not concede), neither Templeton nor Gaudenzi suggest or motivate attaching the side of the substrate that does

not have the flip chip mounted to it to one of the shelves of a multi-chip package, as taught in claim 28 (as previously described herein) from which claim 30 depends. Therefore, reconsideration and withdrawal of the 103(a) rejection of claim 30 is respectfully requested.

Regarding claim 34, the Office contends that the Gaudenzi patent discloses covering the flip chip with an encapsulant. (Final Office Action, page 5). While it may be true (which the Applicant's do not concede) that the Gaudenzi patent discloses covering the flip chip with an encapsulant, neither the Tempelton patent nor the Gaudenzi patent suggest or motivate attaching the side of the substrate that does not have the flip chip mounted to it to one of the shelves of a multi-chip package, as taught in claim 28 (as previously described herein) from which claims 34 depends. Therefore, reconsideration and withdrawal of the 103(a) rejection of claim 34 is respectfully requested.

In view of the foregoing remarks, the Applicants request allowance of the application. Please forward further communications to the address of record. If the Examiner needs to contact the below-signed agent to further the prosecution of the application, the contact number is (503) 264-0944.

Respectfully submitted,



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